OEM Tech Brief



Chicago White Metal Casting

High-Tech AI, Mg, & Zn Die Casting and Miniature 4-Slide Zn & ZA-8 Die Cast Parts

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Weighing key factors in choosing a supplier for highest-quality results at the lowest unit cost

Selecting the Best Custom Die Caster for Your Next Part Production Project

This 10-point OEM checklist can be a helpful guide to making the optimum supplier decision for successful results in producing a new housing or component as a custom die casting.

A careful review of a prospective supplier's website will give you many of the required answers; an unannounced plant visit will fill in the blanks, confirm any assumptions and provide confidence in your final conclusion.

1 Will you be asked the right questions at the start of your project?

Request a comprehensive description of the initial engineering consultations that will be held with your team. They should be clearly aimed at insuring that all details of your project are fully understood and that the supplier's preplanning and analysis will assure meeting every important specification.

- **2** Can you count on being given fully objective alloy recommendations? If you are not initially certain of which die casting alloy is the best choice for your design, can you have confidence in receiving an unbiased recommendation? Current supplier production in all of the most popular alloys in Al, Mg and Zn will help assure such confidence.
- Are pre-production computer simulations offered for your design?

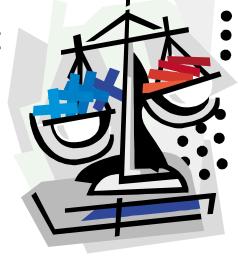
 Does the die caster offer a high-order of inhouse process simulation technology, such as the advanced Magmasoft® die cast software system. Accurate predictions from CAD files of final metal flow, prior to die de-

sign and construction, will reduce lead times, improve quality and lower total costs.

4 Can you take advantage of integrated in-house prototyping?

Where prototypes are required, can they be skillfully, efficiently and rapidly supplied, either as billet machined and/or as RP ABS models? In-house prototyping model data can also be used to speed and reduce the costs of required final-finishing operations.

- Are you guaranteed the highest-quality tool steel for your project?
 Can you receive documentation of testing and certification that the tool steel used for your project meets NADCA* standards, to insure the impact strength and long life of the die steel you will be purchasing.
- Will only certified quality alloys be used in the production of your part? Certified aluminum, magnesium or zinc alloys used in the production of your die cast parts are guaranteed to be free of impurities. Such assurance is essential to the integrity of your castings and their long-term performance in your product.
- **7** Will your casting production receive automated process monitoring? In volume die casting production, automated process-monitoring systems can assure you of consistent part-to-part quality and the lowest possible reject rate; 6-sigma reports should be available if requested.
- Is experienced post-casting CNC machining available to you in-house? With designs not feasible for net-shape die casting production, you will want assurance



of an experienced and efficient in-house post-casting machining capability. Advanced CNC centers and proven expertise in the special machining requirements for high-tech cast parts will assure meeting exacting specifications at the lowest unit costs.

9 Are the latest ISO Quality & Environmental Mgmt. systems in place?

ISO quality management and ISO environmental management systems registration should be a given. Evidence of recertification to the latest series of these international standards should be available.

10 Is there a solid track record of excellent overall company performance?

Has the custom production performance record of the company distinguished itself over time? What is its reputation in its industry? Has the company been an innovator in its chosen production processes?

For your next custom die casting project, Chicago White Metal Casting invites you to evaluate its capabilities, based on the above and any of your own criteria. And we welcome your plant visit at any time.